

TABLE 1. Recommended and minimum ages and intervals between vaccine doses\*

Vaccine and dose number	Minimum age for this dose	Minimum interval to next dose
Hepatitis B1†	Birth	4 wks
Hepatitis B2	4 weeks	8 wks
Hepatitis B3§	6 mos¶	—
Diphtheria and tetanus toxoids and acellular pertussis (DTaP)1	6 wks	4 wks
DTaP2	10 wks	4 wks
DTaP3	14 wks	6 mos**
DTaP4	12 mos	6 mos¶
DTaP5	4 yrs	—
Haemophilus influenzae, type b (Hib)1††	6 wks	4 wks
Hib2	10 wks	4 wks
Hib3§§	14 wks	8 wks
Hib4	12 mos	—
Inactivated poliovirus vaccine (IPV)1	6 wks	4 wks
IPV2	10 wks	4 wks
IPV3	14 wks	4 wks
IPV4	18 wks	—
Pneumococcal conjugate vaccine (PCV)1††	6 wks	4 wks
PCV2	10 wks	4 wks
PCV3	14 wks	8 wks
PCV4	12 mos	—
Measles, mumps, and rubella (MMR)1	12 mos	4 wks
MMR2	13 mos	—
Varicella***	12 mos	4 wks***
Hepatitis A1	2 yrs	6 mos¶
Hepatitis A2	30 mos	—
Influenza†††	6 mos¶	4 wks
pneumococcal polysaccharide (PPV)1	2 yrs	5 yrs
PPV2	7 yrs§§§	—

\* Combination vaccines are available. Using licensed combination vaccines is preferred over separate injections of their equivalent component vaccines (Source: CDC. Combination vaccines for childhood immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP). MMWR 1999;48[No. RR-5]:5). When administering combination vaccines, the minimum age for administration is the oldest age for any of the individual components; the minimum interval between doses is equal to the greatest interval of any of the individual antigens.

† A combination hepatitis B-Hib vaccine is available (Comvax®, manufactured by Merck Vaccine Division). This vaccine should not be administered to infants aged <6 weeks because of the Hib component.

§ Hepatitis B3 should be administered >8 weeks after Hepatitis B2 and 16 weeks after Hepatitis B1, and it should not be administered before age 6 months. ¶ Calendar months.

\*\* The minimum interval between DTaP3 and DTaP4 is recommended to be >6 months. However, DTaP4 does not need to be repeated if administered >4 months after DTaP3.

†† For Hib and PCV, children receiving the first dose of vaccine at age >7 months require fewer doses to complete the series (see CDC. Haemophilus b conjugate vaccines for prevention of Haemophilus influenzae, type b disease among infants and children two months of age and older: recommendations of the ACIP. MMWR 1991;40[No. RR-1]:1–7, and CDC. Preventing pneumococcal disease among infants and young children: recommendations of the Advisory Committee on Immunization Practices [ACIP]. MMWR 2000;49[No. RR-9]:1–35).

§§ For a regimen of only polyribosylribitol phosphate-meningococcal outer membrane protein (PRP-OMP, PedvaxHib®, manufactured by Merck), a dose administered at age 6 months is not required.

††† During a measles outbreak, if cases are occurring among infants aged <12 months, measles vaccination of infants aged >6 months can be

undertaken as an outbreak control measure. However, doses administered at age <12 months should not be counted as part of the series (Source: CDC. Measles, mumps, and rubella — vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps: recommendations of the Advisory Committee on Immunization Practices [ACIP]. MMWR 1998;47[No. RR-8]:1–57).

\*\*\* Children aged 12 months–13 years require only one dose of varicella vaccine. Persons aged >13 years should receive two doses separated by >4 weeks.

††† Two doses of inactivated influenza vaccine, separated by 4 weeks, are recommended for children aged 6 months–9 years who are receiving the vaccine for the first time. Children aged 6 months–9 years who have previously received influenza vaccine and persons aged >9 years require only one dose per influenza season.

§§§ Second doses of PPV are recommended for persons at highest risk for serious pneumococcal infection and those who are likely to have a rapid decline in pneumococcal antibody concentration. Revaccination 3 years after the previous dose can be considered for children at highest risk for severe pneumococcal infection who would be aged <10 years at the time of revaccination (see CDC. Prevention of pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices [ACIP]. MMWR 1997;46[No. RR-8]:1–24).